

Inventors: Wood et al.
Serial No. 09/813858

PATENT APPLICATION
Navy Case No. 79,849

RESPONSE

Claim Objections:

The applicant has reviewed the Examiner's objections to the claims as originally drafted 1-53 and has now redrafted these claims as new claims 54-101.

These new claims are believed to obviate the objections raised by the Examiner

Claim Rejections under 35 USC Section 112 paragraph 2.

The newly redrafted claims 54-101 are now submitted to overcome the rejections raised by the examiner concerning lack of antecedent basis and other wording corrections. In claim 49 the antecedent basis for "said insulating layer" is found in claim 47, now claim 95.

It is submitted that the newly added claims overcome this ground of rejection.

Claim Rejections under 35 USC Section 102(a).

The Examiner has rejected claims 1-19, 21, 23, 24, and 28-30 as being anticipated by Van Vechten et al. Thermoelectric Single Photon Detectors, published in the 18th International Conference on Thermoelectrics 1999. The applicant submits that this reference is not available as prior art because the applicants' effective filing date is March 22, 2000, and this paper was their own publication and the effective filing date is within one year of the publication date of this prior art. The attached DECLARATION OF THE INVENTORS substantiates that the applicants are the sole inventors of the subject matter of this application.

Therefore this ground of rejection has been obviated by the applicants' provisional filing date within one year of their own publication.

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Further Claim Rejections under 35 USC Section 102(a).

The Examiner has rejected claims 37-43, 46-48, 50 and 51 as being anticipated by Gulian et al. (IEEE Trans. On Applied Superconductivity 1999, 9:3194-3197 entitled Imaging Detectors Based on the Response of Anisotropic Layered Materials.

The applicant submits that this reference is not available as prior art because the applicants' effective filing date is March 22, 2000, and this paper was their own publication and the effective filing date is within one year of the publication date of this prior art. The attached DECLARATION OF THE INVENTORS substantiates that the applicants are the sole inventors of the subject matter of this application.

Therefore this ground of rejection has been obviated by the applicants' provisional filing date within one year of their own publication.

Claim Rejections under 35 USC Section 103

The Examiner has rejected claims 20, 22, 25, 26, and 53 as being obvious over Van Vechten et al in view of Blomberg et al. The Examiner uses Blomberg as a combination reference to show teachings of the claims that are now shown by Van Vechten, but these Examiner has not shown the required motivation to combine these references to meet the claimed limitations.. For example, the Blomberg patent does not teach or describe a photon detector which is recited in each of the applicant's claims.

Therefore in view of this argument that the Examiner has presented two references which are not combinable, this ground of rejection has been obviated.

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Further Claim Rejections under 35 USC Section 103

The Examiner has rejected claims 31-33 and 36 as being obvious over Van Vechten et al in view of Lehovec. The Examiner uses Lehovec as a combination reference to show teachings of the claims that are now shown by Van Vechten, but these Examiner has not shown the required motivation to combine these references to meet the claimed limitations.. For example, the Lehovec does not teach or describe a photon detector, i.e. a detector for a single photon which is recited in each of the applicant's claims.

Therefore in view of this argument that the Examiner has presented two references which are not combinable, this ground of rejection has been obviated.

Further Claim Rejections under 35 USC Section 103

The Examiner has rejected claims 44 and 45 as being obvious over Gulian et al. in view of Himpsel. Again the Examiner uses Himpsel as a combination reference to show teachings of the claims that are now shown by Van Vechten, but these Examiner has not shown the required motivation to combine these references to meet the claimed limitations.. For example, the Himpsel does not teach or describe a photon detector, i.e. a detector for a single photon or photon detection which is recited in each of the applicant's claims.

Therefore in view of this argument that the Examiner has presented two references which are not combinable, this ground of rejection has been obviated.

Further Claim Rejections under 35 USC Section 103

Finally, the Examiner has rejected claim 49 as being obvious over Gulian et al. The examiner admits that Gulian does not show a non-electrically conducting absorber and thus the

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applicant submits that the reference can not be used to show something which it does not itself teach.

The Examiner has rejected claim 52 based on the applicants teaching of the prior art in the specification, namely that CeNiSn has a large seebeck coefficient. But this statement in the specification does not show the combination of this compound with the photon detector as claimed. The Examiner does not show the combination of this compound with the photon detector either in the prior art of record or in the specification.

Therefore these grounds of rejection are also submitted to be obviated in view of these arguments.

CONCLUSION

In view of the foregoing amendments and response, the applicant now submits that the newly added claims 54-101 are now allowable over the art of record and over the Examiner's rejections of the prior claims. The applicant respectfully submits that the Examiner should pass this case to allowance with the issue of the notice of allowability. If there remains any outstanding matter which may require the applicant's attention, the Examiner is asked to call the applicant's attorney John G. Mills at 202-404-1553 for resolution of the matter.

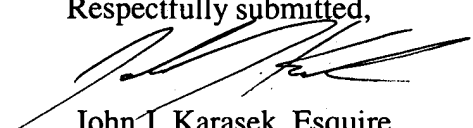
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Kindly charge any additional fees due or credit overpayment of fees to Deposit Account

Number 50-0281.

Respectfully submitted,



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